

PATENT
Appl. No. 09/835,253
Attorney Docket No. 450103-05760

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method comprising:

of determining a period of recurring events within a recorded signal, the period of
recurring events providing a measurement of a tempo of the recorded signal, said determining
the method comprising:

establishing ~~one or more~~ an anchor point ~~points~~ in the recorded signal, the anchor
point being indicative of a beginning point for a period of recurring events in the
recorded signal;

determining a length for the period of recurring events in the recorded signal, the
length starting from the established anchor point and defining a first loop; and

refining the length for the period of recurring events by comparing the first loop
with subsequent loops, the subsequent loops having the length of the first loop.
2. (Original) The method of claim 1, further comprising determining if the recorded
signal is rhythmic.
3. (Currently Amended) The method of claim 1, wherein ~~the step of~~ establishing an
anchor point in the recorded signal comprises utilizing digital signal processing techniques to
identify where recurring events begin.

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4. (Currently Amended) The method of claim 1, wherein ~~the step of establishing an~~ anchor point in the recorded signal comprises receiving an indication of a location on the recorded signal from a computer input device.

5. (Currently Amended) The method of claim 1, wherein ~~the step of determining a length~~ for the period of recurring events in the recorded signal comprises utilizing digital signal processing techniques.

6. (Original) The method of claim 5, wherein the digital signal processing techniques compare a first portion of the recorded signal with a second portion of the recorded signal, the first portion and the second portion having the same length.

7. (Currently Amended) The method of claim 1, wherein ~~the step of determining a length~~ for the period of recurring events in the recorded signal comprises receiving an indication of a length of the period on the recorded signal from a computer input device.

8. (Currently Amended) The method of claim 1, wherein ~~the step of refining the length~~ for the period of recurring events by comparing the first loop with subsequent loops comprises utilizing digital signal processing techniques.

9. (Original) The method of claim 8, the digital signal processing techniques compare a first portion of the recorded signal with a second portion of the recorded signal, the first portion starting at a first inspection point in the recorded signal and ending at a first distance from the

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first inspection point equal to the length to be refined, the second portion starting at a second inspection point in the recorded signal and ending at a second distance from the second inspection point equal to the length to be refined.

10. (Currently Amended) The method of claim 1, wherein the step of refining the length for the period of recurring events comprises using the distance between multiple anchor points as a guide to estimate an approximate count of time periods from which a tempo can be derived.

11. (Currently Amended) In a computer program product, a system of providing a measurement of a tempo of a recorded signal, the tempo being a period of recurring events within the recorded signal, the system comprising:

means for establishing ~~one or more~~ an anchor point ~~points in the a~~ recorded signal, the anchor point being indicative of a beginning point for a period of recurring events in the recorded signal;

means for determining a length for the period of recurring events in the recorded signal, the length starting from the established anchor point and defining a first loop; and

means for refining the length for the period of recurring events by comparing the first loop with subsequent loops, the subsequent loops having the length of the first loop;

wherein the period of recurring events provides a measurement of a tempo of the recorded signal.

12. (Original) The system of claim 11, further comprising means for adjusting the length for the period of recurring events.

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13. (Currently Amended) The system of claim 11, wherein the means of establishing ~~one or more~~ the anchor point points in the recorded signal comprises means for identifying where recurring events begin.

14. (Currently Amended) The system of claim 11, wherein the means of establishing ~~one or more~~ the anchor point points in the recorded signal comprises means for receiving an indication of a location on the recorded signal from a computer input device.

15. (Original) The system of claim 11, wherein the means of refining the length for the period of recurring events by comparing the first loop with subsequent loops comprises means for comparing a first portion of the recorded signal with a second portion of the recorded signal, the first portion starting at a first inspection point in the recorded signal and ending at a first distance from the first inspection point equal to the length to be refined, the second portion starting at a second inspection point in the recorded signal and ending at a second distance from the second inspection point equal to the length to be refined.

16. (Currently Amended) The system of claim 11, further comprising means for combining said recorded signal having said tempo signals with another recorded signal of an unknown tempo.

17. (Original) The system of claim 11, further comprising means for presenting the recorded signal and loops in the recorded signal.

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18. (Currently Amended) A processing system comprising:
a central processing unit (CPU); and
a storage device coupled to a ~~processor~~ said central processing unit and having stored there information for configuring the CPU central processing unit to determine a period of recurring events in a recorded signal, the period of recurring events providing a measurement of a tempo of the recorded signal, wherein the determining comprises:

establishing a loop starting point in the ~~a~~ recorded signal, the loop starting point being indicative of a beginning point for a period of recurring events in the recorded signal, the period of recurring events defining a loop;

determining ~~determine~~ a length for the loop in the recorded signal, the length starting from the established loop starting point; and

adjusting the length ~~for of~~ the loop by comparing the loop with subsequent loops, the subsequent loops being defined as portions of the recorded signal having the length of the loop and starting at a point in the recorded signal later in time.

19. (Currently Amended) The system of claim 18 ~~17~~, further comprising a presentation device, wherein the presentation device is configured to provide a graphical user interface which presents portions of the recorded signal.

20. (Currently Amended) The system of claim 18 ~~17~~, further comprising an interface device configured to connect the CPU central processing unit with a network of computers.

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21. (New) A method comprising the acts of:

- displaying a graphical representation of a recorded audio signal;
- establishing an anchor point in the audio signal, wherein the anchor point identifies where a rhythmic pattern in the audio signal appears to begin;
- identifying a first period during which the rhythmic pattern in the audio signal appears to occur, the first period beginning at the anchor point and ending at a repeating point;
- identifying a second period during which the rhythmic pattern in the audio signal appears to occur, the second period beginning at the repeating point;
- adjusting the rhythmic pattern such that a duration of the first period is substantially the same as a duration of the second period, the durations establishing tempo information for the audio signal;
- associating the tempo information with the recorded audio signal; and
- using the tempo information to process the recorded audio signal with a second recorded audio signal.